APPLICANT(S):

KOROL, Victor et al.

SERIAL NO.:

09/910,769 July 24, 2001

FILED: Page 2

1

1. (Once Amended) An apparatus comprising:

an estimator adapted to predict occurrences of a predetermined amplitude level in an in-phase and quadrature phase (I/Q) complex trajectory plane; and

a deflector which is adapted to deflect the I/Q complex trajectory from an origin of the I/Q complex trajectory plane according to an estimator prediction.

2. The apparatus of claim 1, wherein the deflector is adapted to receive samples of an I/Q data stream and deflect the I/Q complex trajectory of the I/Q data stream according to I/Q complex trajectory corrective parameters.



- 3. The apparatus of claim 2, wherein the estimator is adapted to receive at least two consecutive symbols of the I/Q data stream and to determine whether or not to provide the I/Q complex trajectory corrective parameters according to at least two consecutive symbols.
- 4. The apparatus of claim 3, wherein the estimator is adapted to provide the trajectory corrective parameters according to an estimated distance between the origin of the complex trajectory plane to the I/Q complex trajectory.
- The portable communication device of claim 6 further comprising:

a deflector which is adapted to deflect the I/Q complex trajectory from an origin of a complex trajectory plane according to an estimator prediction.

8. The portable communication device of claim 7, wherein the deflector is adapted to receive samples of I/Q data stream and deflects the I/Q complex trajectory of the I/Q data stream according to I/Q complex trajectory corrective parameters.



10. The portable communication device of claim 9, wherein the estimator is adapted to provide the trajectory corrective parameters according to an adjustable deflection window.

APPLICANT(S):

KOROL, Victor et al.

SERIAL NO.:

09/910,769 July 24, 2001

FILED:

Page 3

The portable communication device of claim 11, further comprises a data source to 12. provide the I/Q data stream and an antenna.

14. An apparatus comprising:

an estimator adapted to predict occurrences of a predetermined amplitude level in an in-phase and quadrature phase (I/Q) complex trajectory plane which is to be deflected from an origin of a complex trajectory plane according to the estimator prediction.

15. The apparatus of claim 14 further comprising:

a channelization and spreading block which is operably coupled to a pulse shaping filter and to the estimator wherein the pulse shaping filter is operably coupled to a deflector;

a digital to analog converter which receives signals from the deflector and output signals to a filter; and

an upconverter which receives signals from the filter and is adapted to upconvert the signals into radio frequency signals.

16. The apparatus of claim 15, further comprises a sampler which receives an in-phase and quadrature (I/Q) phase data stream from the channelization and spreading block and is adapted to provide samples of I/Q data stream to the estimator.

17. A method comprising:

predicting an occurrence of a predetermined amplitude level in an in-phase and quadrature phase (I/Q) complex trajectory plane.

18. The method of claim 17 further comprising:

deflecting an I/Q complex trajectory from an origin of a complex trajectory plane according to a prediction.

21. The method of claim 20, further comprising:

1

APPLICANT(S):

KOROL, Victor et al.

SERIAL NO.:

09/910,769

FILED:

July 24, 2001

Page 4

providing the trajectory corrective parameters according to an adjustable deflection window.

22. An article comprising: a storage medium having stored thereon instructions, that, when executed by a computing platform, results in:

predicting an occurrence of a predetermined amplitude level in an in-phase and quadrature phase (I/Q) complex trajectory plane; and

deflecting an I/Q complex trajectory from an origin of a complex trajectory plane according to a prediction.

24. The article of claim 23 wherein the instructions of predicting result in:

deciding whether or not to provide to I/Q complex trajectory corrective parameters according to a data of at least two consecutive symbols of the I/Q data stream.

25. The article of claim 24, wherein the instructions further result in:

providing the trajectory corrective parameters according to an estimated distance between the origin of the complex trajectory plane to the I/Q complex trajectory.

Attached hereto is a marked-up version of the changes made by the current amendment. The attached pages are captioned "Version with Markings to Show Changes Made".

